



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/010,136	12/06/2001	Lawrence Dean Hazelton	DP-302274	4785

7590 03/01/2004

MARGARET A. DOBROWITSKY
DELPHI TECHNOLOGIES, INC.
P.O. Box 5052
Mail Code: 480-414-420
Troy, MI 48007-5052

EXAMINER

RIOS CUEVAS, ROBERTO JOSE

ART UNIT PAPER NUMBER

2836

DATE MAILED: 03/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/010,136

Applicant(s)

HAZELTON, LAWRENCE DEAN

Examiner

Roberto J Rios

Art Unit

2836

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2001.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-8 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 06 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/03.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 2 is objected to because it recites: "said battery state-of-charge protection system". There is insufficient antecedent basis for this limitation in the claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –
(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 2 and 4-8 are rejected under 35 U.S.C. 102(a) as being anticipated by Turner et al (US patent 6,249,106).

As per claim 2, Turner et al (herein after Turner) teach a battery protection system for a battery, comprising: a switching mechanism positioned intermediate to the positive terminal of a battery and an electrical load; a controller for manipulating said switching mechanism between an open position and a closed position, said closed position connecting said electrical load to said battery and said open position disconnecting said electrical load from said battery; and a battery state detection system (Figures 1, 8), said battery state-of-charge protection system instructs said controller to open said switching mechanism when said battery state corresponds to a vehicle crash (col. 3, line 66-col. 4, line 3; col. 10, line 53).

As per claim 4, Turner teaches a manual override switch (46) for disconnecting said battery from said electrical load.

As per claim 5, Turner teaches a vehicle status detection system, said vehicle status detection system instructs said controller to close said switching mechanism when a battery re-connect condition is detected by said vehicle status detection system (claim 3).

As per claim 6, Turner teaches a device for disconnecting a battery from an electrical load, comprising: an electronic switch (14) interposed between a battery output terminal and any battery electrical load; a means for determining whether a vehicle in which said battery is installed is in a collision (col. 10, line 53); and a means for causing said electronic switch to transition from a closed-circuit condition to an open-circuit condition (Figures 1, 8).

As per claim 7, Turner teaches a method for disconnecting a vehicle battery when said vehicle is involved in a collision, comprising: sensing a collision by a sensing device (col. 10, line 53), said sensing device providing a signal to a control device; commanding a control device to disconnect said battery from any electrical load (Figures 1, 8).

As per claim 8, Turner teaches said control device being a switching mechanism positioned intermediate to the positive terminal of a battery and any electrical load (Figures 1, 8), said switching mechanism being operated by a controller for manipulating said switching mechanism between an open position and a closed position, said closed position connecting said electrical load to said battery and said open position disconnecting said electrical load from said battery (claim 2).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being obvious over Turner in view of Alksnat et al (US patent 6,049,140).

As per claim 1, Turner teaches all the limitations except opening the switch in response to an output received from an accelerometer. However, Alksnat et al (herein after Alksnat) teach a battery discharge protection system, wherein a switch is opened in response to an output received from an accelerometer (22).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Turner's battery discharge protection system with Alksnat's accelerometer for the purpose of accurately detect a crash condition by sensing a sudden deceleration of the vehicle.

As per claim 3, Turner teaches the vehicle status detection system but does not specifically disclose said vehicle status detection detecting a crash condition. However, Alksnat teaches a battery discharge protection system, wherein a switch is opened in response to an output received from an accelerometer (22).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Turner's battery discharge protection system with

Art Unit: 2836

Alksnat's accelerometer for the purpose of accurately detect a crash condition by sensing a sudden deceleration of the vehicle.

6. Art of general nature relating to battery protection systems has been cited for applicant's review.

Communication with PTO

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roberto Rios whose telephone number is (571) 272-2056. In the event that Examiner Rios cannot be reached, his supervisor, Brian Sircus may be contacted at (571) 272-2800, ext. 36. The fax number for Before-Final communications and After-Final communications is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Roberto J. Rios
Patent Examiner



BRIAN SIRCUS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800